

Aspects of the semantics of the deictic clitics =*d* and =*nn* in Berber, and microvariations

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1. INTRODUCTION

In this presentation I give a typological overview of the semantic behaviour of the directionals =*d* and =*nn* (and their different forms) in Berber focussing on:

- The role of motion, particularly directed motion (and motion which necessarily involves the displacement of a figure), and measure on the distribution of directionals.
- I also look at a function of the directionals, not often addressed in the literature, that of associated motion, again discussing variations across Berber.

The data used come from different sources including detailed descriptions of the directionals in particular varieties, grammars, texts (where relevant) and my own corpus from Taqbaylit. The languages looked at in detail are: Tamasheq (Mali), Ayer Tuareg (Niger), Tetserret (Niger), Ghadames, Tashelhit, Tamazight and Taqbaylit.

2. BASIC SEMANTICS

The two directionals =*d* and =*nn* occur across Berber languages to express the two deictic path notions ‘to or toward the speaker’ for =*d* (and its phonological variants) and ‘not in the direction of the speaker’ for =*nn* (and its phonological variants). The following examples from Bentolila for Ait Seghrouchen illustrate this opposition.

(1) a. iṛaḥ D ġr i ‘Il est venu chez moi’

 b. iṛaḥ N ġr I ‘Il est allé chez moi.’

It is well known that =*d* is found across Berber languages, while =*nn* is not. Thus, varieties of Taqbaylit do not use =*nn* (Aoumer, 2011; Belkadi, 2014). Other languages, according to the sources, show an opposition between =*d* and =*nn* in most contexts involving canonical motion. However, when =*nn* is found it is often less frequent than =*d*.

The deictic anchors with respect to which the clitics are interpreted differ both across and within varieties depending on a number of factors. First, many varieties use =*nn* not necessarily to describe motion away from the speaker but to describe motion to or toward the addressee or another deictic centre (Bentolila, 1969; Fleisch, 2007).

(2)

j-dda=nn	zʕar-s	imikr	g	j-idʕ
3SG.M-go.PFV=ITV	by-3SG	thief	at	CS-night

‘A thief went to her place at night.’

In Tikicurt Taqbaylit (Belkadi, 2010) =*d* can also take the addressee as the deictic anchor. These examples tend to arise when the addressee is at their home.

- (3) argaz=im, y-kcm=d?
 man=2SGF.POSS 3SGM-enter.PRF=VENT
 ‘Has your husband come back?’

There seems to be a fairly grounded metaphor with descriptions of natural phenomena or body secretions whereby these are described linguistically with motion verbs (as well described in Bentolila, 1969; El Mountassir, 2000). An example is given from El Mountassir (2000: 141) in which the verb *γli* ‘to go up’ is used to describe the motion of the sun into the speaker’s sphere, marked by the ventive.

- (4) t-γli=d tafukt
 3SGF-go.up.PRF=VENT sun
 ‘The sun rises.’

The deictic anchor for the clitics in these motion contexts are not the particular locations of the speaker at the time of utterance, but more generally the space inhabited by the speaker and other humans. El Mountassir (2000) shows that the deictics can be evaluated along various axes: sky vs. ground; sea vs. shore; underground vs. overground.

- (5) t-ḡḡr=nn tafukt
 3SGF-fall.PRF=ITV sun
 ‘The sun sets.’

Similar examples are found across varieties. Bentolila (1969) describes events relating to bodily secretions as often modified by either clitic as relevant in Ait Seghrouchen, again the verbs used are motion verbs, respectively *ḡr* ‘to go down’, *K* ‘to pass, to go’.

- (6) imṭawn La **ṭarn-i-D** zG^waLn-inw
 ‘Les larmes coulaient de mes yeux.’
- (7) alǧm din mu **D tKu** Dunt imŽan
 ‘le chameau dont la graisse coule par les oreilles.’

3. THE PREDOMINANCE OF MOTION

There is a tendency in parts of the literature to separate canonical verbs of motion from other verbs when discussing the directionals. However, these other verbs often to a certain extent do describe motion of entities. In fact, most of the verbs for which a deictic modification by either of the clitics is possible do encode some kind of motion (see also Heath for Tuareg).

3.1. Motion descriptions and motion verbs (Talmy, 2000)

Talmy (2000) defines a motion event as a situation involving the movement of an entity with respect to another entity. Four components interact for a motion situation to be complete:

- The Figure: the object in motion
- The Ground: the object with respect to which the figure moves

- The Path: the trajectory followed by the figure with respect to the Ground
- Motion: the motion per say

The particular type of motion that needs to happen, and somehow be described by the verb, for the directionals to occur is translocational motion: motion in which the location of the figure changes over a certain period of time. And most of the verbs which can be modified by the directionals belong to particular subtype of this particular class of verb.

3.2.Path and oriented motion verbs

A survey from all the sources show that most of these encode either directed or oriented motion. In Talmy's terminology, the directed motion verbs encode a path. The path of the relevant verbs can be of different shapes:

- Simple transitional path (see Beavers, 2008). For example the verb *awəð* ‘to arrive’, which occurs across all the surveyed corpus:

(8) qim-nt dg uxxam a ttraḡu-nt milmi a=d **t-awḑ**
sit.PR-3PL in house IRR wait.IMPRF-3PLwhen IRR=VENT 3Sgf-arrive.PR-
'They stayed and waited for her to arrive.'

In addition to 'arrive', the verb *as* 'to come' and forms with the meanings of 'to enter', 'to go out' are frequently found and across all dialect.

- Complex or durative paths

An example from Taqbaylit involving the verb *sub* ‘to go down’ is given in (9).

(9) **i-sub** =**d** umyar =im
 3SGM-go.down.PRF =VENT old.man.CS =2sgf.poss
 ‘Your father-in-law came down (the stairs).’

- Unbounded, as shown by the example from Tagbaylit:

(10) y-ada=d wrgaz wyad
3SGM-pass=VENT man other
'(then) another man walked past.'

- Dialectal variations

The verb *awas* ‘to go away’ in Ghadames which lexicalises itive motion and never combines with the clitics.

The Tashelhit verb *ftu* ‘to leave (partir)’ is a verb whose path describes motion away from a source, it is bounded at the beginning of the path. This might make it already deictically specified. In some contexts, the ventive clitic can be used with this verb if the meaning is ‘to walk’.

3.3.Causative Motion

In addition to directed motion, many occurrences of the clitics are with verbs of causative motion: verbs describing the motion of a figure caused by an agent.

- Verbs of causing a change of location, such as the verbs *awi* ‘to take’, illustrated with an example from Taqbaylit in (11), and the example in (12) involving the verb for ‘to throw’ in Ayer Tuareg (Kossman, 2011: 109)

(11) ruḥ-n a=tt=**id** **awi-n** si Tisemsilt
 go.PR-3PLM IRR-3SGF.ACC=VENT bring.AOR-3PLM from Tisemsilt
 ‘They went to take her from Tisemsilt to here.’

(12) w-əyaḍ t-ǎčč_en w-əyaḍ
 M:P-some 3SGF-eat:A_3P:M:ACC M:P-some

t-əssərtək_ḵān_du
 3S:F-make.fall:A_3P:M:ACC_VENT
 ‘Some she eats, others she throws (off a cliff).’

Verbs encoding the meaning of taking, carrying, sending, leading, giving and borrowing were also found in the corpus with either directionals.

- Verbs of putting and removing

(13) a. **t-ǎssúrās=ən** fāssān nn-ās éḡāf=i
 3SG-put:P=ITV hands of-3SG head=LOC
 ‘She put her hands on the head.’
 Ghadames (Kossman, 2013)

b. as-mi mqr-ḡ uḡal-n **hḡv-n=iyi=d**
 when grow.up.PR-1SG become.PR-3PLM veil-3PLM=1SG.DAT=VENT
 ‘When I grew up they veiled me.’
 Taqbaylit

c. (...) **ar-d-seqfen** essqef amziaru
 ‘(...) jusqu’à ce qu’ils couvrent le rez-de-chaussée.’
 Ait Izdeg (Mercier, 2013: 6)

(14) awwar ḡərəd əd=**d** **okkəf-ək**
 matin.SG tous VIRT=PROX.PCL enlever/AOR-1SG

illa-n oddəḡ-adən
 mil-PL piler/AOR
 ‘Tous les matins, je prends le mil pour le piler.’
 Tetserret (Lux, 2013: 547)

- Verbs of causing the motion of a liquid

(15) **y-ābul=az=d** esm=i
 3SGM-urinate:P=3S:IO=VENT ear=LOC
 ‘He urinated in his ears.’
 Ghadames (Kossman, 2013)

t-āllān=ən εáf-əs àlmluxiyya=ye
 3SF-pour.P=ITV on-3S okra-ANP:S

d aksəm=e
 and meat-ANP:S
 ‘She poured the okra and the meat onto him.’
 Ghadames (Kossman, 2013: 116)

- Verbs of contact using a body part or with an instrument

(16) **a_dd_āttāke** takābart
 NR_VENT_hammer:A EL:cup
 ‘I will hammer the milking cup (for polishing).’
 Ayer Tuareg (Kossman, 146)

(17) **t-tf** =iyi =d
 3SGF-touch.PRF =1SG.DAT =VENT
 ‘She touched me (here).’

3.4.Manner of motion

The rarity of examples involving manner of motion verbs with the directionals comes partly from the fact that Berber languages tend to be verb-framed languages in the sense of Talmy (see Fleisch, 2008 for a discussion) and tend to use less manner verbs to describe motion in narratives.

But may also come from the fact that they do not encode a path or a direction. It seems that for a manner of motion verb to occur with the clitic, the motion involved must be able to be interpreted as canonically involving translocational motion rather than self-contained motion.

(18) as d_əgl-ān t-əggād_du_sər-sān tāyalge
 when VENT_go:P-3PM 3SF-fly:P_VENT_to-3PM EA:vulture
 ‘When they had gone, a vulture flew towards them.’
 Ayer Tuareg (Kossman, 2011)

(19) di lavidat n dada, dg=s i=d rkv-γ
 in Vedette POSS dad, in=3SG.OBL REL=VENT ride.PRF-1SG
 ‘It is in my dad’s car that I rode (there).’

But (20) from Taqbaylit gets a different kind of interpretation:

- (20) **i-ɣum** =d
 3SGM-swim.PRF =VENT
 *‘He swam (towards or to the location of the speaker).’
 ‘He went somewhere, swam and came back (to the location of the speaker).’

Similar interpretations are also given for the verb *cth* ‘to dance’ (which can be modified by directional elements in other languages, e.g. German; English).

The impossibility of having the ‘to/toward the speaker’ in such examples further highlights the relation that these clitics as expressions of deictic path have with the path which is lexicalised or not in the verb they modify.

4. FICTIVE MOTION

Most studies (Bentolila, 1969; Aoumer 2011; El Mountassir, 2000; Fleisch, 2012; Mettouchi, 2011; Heath, 2005; Lux, 2013; Kossmann, 2011; 2013) which have focussed on the clitics observe that situations in which an entity appears or disappears from the speaker’s location or from the human space, or whether it becomes visible or invisible frequently are described with either the ventive or itive.

Appearance and visibility may trigger uses of either the ventive or the itive clitic inside some motion descriptions, and is probably relevant too in descriptions involving change of states verbs, but where they are more obvious and systematically involved are in contexts where fictive motion seems to be involved. Fictive motion can be defined as the metaphorical or perceived motion of some stimulus or other entity along an abstract path (Talmy, 2000; Slobin, 2008).

4.1. Appearance

The most canonical examples of the relevance of appearance vs. disappearance are the two antonyms ‘to remember’ vs. ‘to forget’ from Tuareg (Heath, 2005):

- (21) a. t-əttəwæ-d-ín
 2S-forget.PerfP-2sS-Centrip
 ‘You forgot.’
 b. kattæ-n-ədd
 remember-LoImprf-3MaPlS-Centrip
 ‘They remember (regularly).’
 c. əkte-q-q-idd
 remember.PerfP-1SgS-3MaSgO-Centrip
 ‘I remembered him.’

In the corpus analysed, in addition to Tuareg (Mali), Taqbaylit and Tetserret also show similar distributions for the directionals. In Tuareg and Taqbaylit, these verbs are described as forming strong collocations with either clitic, what Bentolila, for other compounds, refers to as ‘expression semi-figées’. Aoumer (2011) mentions the verb *mmekti* ‘to remember’, as well as its derived causative *smekti* ‘to cause to remember’ as obligatorily modified by the ventive.

4.2. Visibility

Visibility is also a strong factor. Many verbs that have strong associations with either or both of the directionals are verbs of visual perception and verbs of finding.

The Berber verb *af* ‘to find’ is found in most sources looked at, but unexpectedly does not necessarily always occur with the ventive in all languages. This is shown by the following two examples from Ghadames:

- (20) a. **y-úfe-n** dos ġāḥḥa i-ttākkās
 3SGM-find:P=ITV there Ġāḥḥa 3S:M-pull.out:I
 əssínaka d əflelān
 carrots and onions
 ‘He found (there) Gahha pulling out carrots and onions.’
- b. lam t-ǣǣǣl-əd **t-úfe-t=d** ma-ik da
 if 2S-haste:P-2S 2S-find:P-2S=VNT mother-2S:M here
 ‘If you had been here earlier you would have found your mother here.’

The fictive motion here involves motion of the experiencer’s gaze over a visual path whose starting point is the experiencer and whose endpoint is the object or situation ‘found’. The goal of this vision path, which happens to be the location of what is found is evaluated deictically with respect to the speaker.

This verb is one which is also associated with derived deictic semantics in some varieties of Taqbaylit: unexpectedness. Mettouchi (2011, p. 6) discusses the following example, where the presence of the ventive marks that the unexpected nature of the object or situation found.

- (21) imi=t=idd t-lli **t-ufa=dd**
 when-ABS3SG.F=PROX SBJ3SG.F-open.PRF 3SG.F-find.PRF=PROX
 d baba-s
 COP father-KIN3SG
 ‘When she opened the door, she realised it was her father.’

The verbs of visual perception such as verbs of seeing or looking also seem to involve fictive motion, but with an opposite visual path.

- (22) a. a-s-íkəl wə-ndín...,
 Sg-Instr-trip Ma-RecAnaph...,
 má-dəy-əs-ədd **t-ənháy-əd?**
 What?-in-3Sg-Centrip 2S-see.Result-2SgS
 ‘That recent trip, what did you see during it?’
 (Heath, 2006: 599)
- b. a **ddu_t-əswād** ba_tānāt
 when VENT_3S:F-look:P be.not:P_3P:F:ACC
 ‘When she looked, they were not there.’
 (Kossmann, 2013: 127)

There are similar examples in Taqbaylit involving the verb ‘to see’, in marked contexts. The sentence in (22) implies that the sight of the stimulus has come to speaker.

- (23) **wala-γ** =km =**id!**
 see.PRF-1SG =2SG.F.ACC =VENT
 ‘I saw you (indeed).’

5. INCHOATIVITY

The other consistent verb class which occurs with the directionals in their basic deictic sense are stative verbs which can be used as inchoatives, and sometimes as causatives too. The following examples from Tashlehit (El Mountassir, 2000) in (24) and Taqbaylit (25) show the kind of change of state verbs that are involved and shows the interpretations which arise.

- (24) a. isggan udyar-ad
 ‘ce tissue est noir.’
 b. **isggan-d** udyar-ad
 ‘ce tissue est devenu noir.’
 c. ar-**d ittisgin** udyar-ad
 ‘ce tissue commence à noircir.’
- (25) a. y-ḥma yimnsi.
 3SGM-be.hot.PRF dinner.CS
 ‘The dinner is hot’ or ‘The dinner became hot.’
 b. **y-ḥma=d** yimnsi.
 3SGM-be.hot.PRF dinner.CS
 ‘*The dinner is hot’
 ‘The dinner became hot.’
 c. **ṭ-ḥma** =**d** imnsi.
 3SGF.be.hot.PRF =VENT dinner
 ‘She heated the dinner.’

This verb class is where most asymmetries occur. First between =*d* and =*nn*, since =*d* is found much more frequently. But also between varieties: in the corpus, Ghadames, the two varieties of Tuareg and Tetserret did not present inchoative-clitic compounds that did not also encode motion, apart from the variants of ‘to be born’ and ‘to cause to be born’.

It would be tempting to analyse the possibility of using the clitic, particularly the ventive with change of states as coming simply from a perception of the event they describe as involving some kind of fictive motion (similar to one in the previous section). However, I do not think that this is exactly why the ventive occurs, because of examples such as (26).

(26) *t-zz-bzgg* =*d* *iman* =*is* *yawk*.
 3SGF-CAUS-be.wet.PRF =VENT self =3SG.POSS all
 ‘*She got herself wet towards here.’ ‘*She got herself wet unexpectedly.’
 ‘She went somewhere, soaked herself and came back’ or ‘She arrived soaking wet (to the location of the speaker)’.

The difference between the verbs in (24) and (25) is that *hma* ‘to be hot’ belongs to an ambivalent class of stative verbs, well discussed in the literature (Guerssel, 1986; Chaker, 1993; Mettouchi, 2004 amongst others), which can also encode change of states, *bzgg* is a verb that does not lexicalise a change of state, it is a stative.

It seems that the fact that a verb lexicalises a change of state is relevant. Interestingly, change of state verbs have been shown across the literature to share similarities with motion verbs, particularly those encoding paths or directions. One idea I think might make sense here is the idea that both path and change of state verbs describe scalar change; that is a change of values in a particular direction along some scale (Rappaport Hovav, 2006; RH & Levin, 2010; Beavers, 2011):

- (i) for path predicates, the scale is a trajectory, and the figure (agent) changes location as they move over this stretch of space.
- (ii) For change of states, the scale might be a property scale (Beavers, 2011): the theme changes its properties as it moves along the scale.

Note that the scale also measures the event, for when the theme attains the property of being hot, the event is over. And it seems, at least in this dialect of Taqbaylit, that the final state is the thing modified by *=d*, with respect to the speaker (this is compatible with Mettouchi, 1998; 2011 who notes a high occurrence of *=d* in telic contexts).

Again the notion of movement along some path (or scale) seems to be what makes the clitic uses extend to inchoative verbs in Taqbaylit. Note that the high occurrence of directionals with path motion verbs and causative motion verbs (which always imply a change), plus the extension to only particular verbs describing change of states seem to indicate a relation between aspectual components of verbs and the directionals.

6. ASSOCIATED MOTION

Associated motion is mentioned for several dialects: Tuareg (Mali and Ayer variety), Taqbaylit, Ait Seghrouchen, Tamazight and possibly Ghadames. It involves the presupposition of an additional motion prior or subsequent to the event described by the verb, which is deictically modified by the clitics.

- (27) **aṛaḥ aẓm -D aman**
 ‘Va puiser de l’eau et ramène-là ici’.
 Ait Seghrouchen (Bentolila, 1969)

Associated motion of this type occurs in a range of unrelated languages with deictic directionals (cf. Mietzner & Claudi, 2012). It also occurs as an inflectional category in some Austronesian (Wilkins, 2006) and Amerindian languages (Guillaume, 2006). When it is expressed by

directionals, as in Berber, associated motion tends to occur outside of canonical motion descriptions (directed motion verbs). In languages where the category is inflectional, it occurs more productively, with a wider range of verbs including motion ones, and paradigms often mark some semantic oppositions.

Here again there are small variations between the languages surveyed.

- It seems to be very marginal in Taqbaylit dialects: speakers do not productively use associated motion, but provides such examples in elicitations, always with verbs that do not allow direct deictic modification by the directionals.
- Tuareg, at the other end, seems to make very high uses of these functions of directionals. In the corpus, particularly in the grammar of Tamasheq written by Heath (2006) and the text extract provided at the end, associated motion is found with verbs that do not allow basic deictic modifications in Taqbaylit (28), but also with verbs that do allow deictic modifications in Taqbaylit and other Berber varieties.

- (28) Ø-ðlæs-à-s æ-næs-bahù t-ənnə
3MaSgS-repeat.PerfP-Dat-3Sg Sg-Agent-lying Fe-say.VblN
- i-ffúd a-tt-ədd
3MaSgs-be.thirsty.Reslt Dem-3MaSgO-Centrip
- ì-s-əsów**
3MaSgS-Caus- drink.ShImprf
'The lying man proceeded to say (that) he was thirsty, and he (=midget) should give him (something) to drink.'
- (29) **i-kfa-hín** ázrəf è mæssi-s
3MaSgS-give.PerfP-centrif money dat master-3SgPoss
'He went and gave the money to his master.'
- (30) i-jrəw-ədd ázrəf
3MaSgS-find.PerfP-Centrip money
- y a-d əqqən-æγ
Dat Dem-Comit build.ShImprf-1SgS
'He got (literally found) money and brought it in order that I build.'
[p. 671, ex. 806]

Associated motion events always describe motion of the agent or experiencer of the verb root modified by the directionals. But there are variations across dialects and within regarding the time in which the additional motion event takes place relative to the event described by the root.

- Ait Seghrouchen (Bentolila, 1969) & Taqbaylit which have associated motion marked by the ventive, mostly have associated motion events which are posterior to the event described by the verb root (i.e. DO x and COME or GO GET x and BRING x). But can also describe motion events which are simultaneous to the root event.

- ### Simultaneous associated motion

- ### *Anterior motion*

- *Posterior motion*
(with most verbs and =d, seems to be the default)

- (35) t-omàd -mæt-édđ a-jærof
2S-gather.Result-2FePLS-Centrip Sg-Tribulus
'You gathered and brought a quantity of Tribulus vine.'

- (36) ad àkk-æγ γás t-a-yàḍḍuf-t
 Fut go.to.ShImpf-1sgS only Fe-Sg-terminate.mound-FeSg
- y æγš-æq-qæt-ódd
 Dat dig.Sh.Impf-1SgS-3feSgO-Centrip
- y a ákšæ-n àra-tæn
 Dat Dem eat.Result-3MaPlS child-MaPl
- ‘I will go only to the terminate mound, to dig it up and bring it, for (to get) something for the children to eat.

7. CONCLUSION

Today I have looked at the two directionals in several Berber languages from the point of view of the types of verb classes they combine with, and their derived meanings.

I showed that the clitics have similar general meanings and distributions across Berber. First, they seem to favour verbs which express directed translocational motion. Second, to a certain extent, factors such as appearance and visibility do play a role in whether the directionals are used or not.

But the study also showed some small variations, particularly outside of motion event descriptions. Some dialects, for instance, display a strong association between the directionals and the class of inchoative verbs, probably derived from the aspectual similarities between this verb class and the verbs of directed motion. On the other hand, other varieties seem to be developing a new category: associated motion.

This small survey also shows that to fully understand the semantics of these directionals a larger-scale investigation is needed.

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